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(54) A sweetening composition

(57) A sweetening composition includes both synthetic and natural sweeteners and consists of sorbitol, glucose, cyclamate and saccharine in the following percentages by weight: sorbitol 40 to 59.5; glucose 40 to 59.5; cyclamate 0.1 to 0.2 and saccharine 0.01 to 0.02.

GB 2 187 074 A

## SPECIFICATION

## A Sweetening Composition

This invention relates to a composition for sweetening food products.

- 5 The determination of flavour is an eminently subjective process and therefore the outcome of an organoleptic analysis of sweetness depends greatly upon the individual on which the sweetness test is performed. This gives rise to errors that may play an important role in creating discrepancies that show up in the evaluation of the sweetening power of different products. Sucrose is used as the standard for sweetness and other sweeteners as compared to sucrose and expressed by means of molar equivalents.

Sweetness relative to sucrose=1

	Glucose	0.7
	Fructose	1.3
	Galactose	0.3
20	Mannose	0.6
	Lactose	0.5
	Cyclamate	30
	Saccharine	500
	Naringenin DHC	500
25	Neohesperidine DHC	1000

The sweetness in plant tissue is provided by a mixture of the three common sugars, glucose, sucrose and fructose in varying proportions.

- 30 The property of sweetness is not, however, restricted to naturally occurring sugars and there are a number of well known synthetic products whose sweetening power is considerably higher than that of sucrose, for example cyclamates and saccharines are between 30 and 500 times sweeter than sucrose.

- 35 From a dietetic point of view the main drawback of synthetic edulcorants is that they leave a considerable and often considered unpleasant residual flavour in the mouth. They nevertheless offer several obvious advantages over natural sweetening agents. Firstly, they are compatible with a diabetic persons diet and secondly they offer individuals who have a problem with carbohydrate metabolism, sweetness with a lower caloric content.
- 40 The present invention is directed to the provision of a formula for an edulcorant that combines the good characteristics of both the naturally occurring and the synthetic sweeteners.

- 50 This object is accomplished by the provision of a sweetening composition which contains sorbitol, glucose, cyclamate and saccharine in the following percentages:

	Sorbitol	40 to 59.5% by weight
	Glucose	40 to 59.5% by weight
55	Cyclamate	0.1 to 0.2% by weight
	Saccharine	0.01 to 0.02% by weight

and may optionally be combined with the normal excipients and carriers used in tablet formulation.

- 60 The incorporation of natural carbohydrates such as glucose and sorbitol allows elimination of the previously mentioned unpleasant residual flavour of the synthetic sweetener, whereas the inclusion of synthetic edulcorants yields a reduction in the caloric contents which may thus be brought down to within acceptable limits for a person concerned with their calorie intake.

The sweetening composition, or a tablet including it, may be used in food preparations in the usual manner of other sweeteners.

- 70 The invention is further defined by a non-limiting example.

## EXAMPLE

- 75 In a sweetening composition having a total weight of 50.077 grammes, sorbitol, glucose, cyclamate and sodium saccharine were admixed in the following amounts.

	Sorbitol	25.000 g
	Glucose	25.000 g
	Cyclamate	0.070 g
80	Sodium saccharine	0.007 g

## CLAIMS

- 85 1. A sweetening composition containing saccharine and cyclamate characterised in that the composition contains sorbitol, glucose, cyclamate and saccharine in the following percentages:

	Sorbitol	40 to 59.5% by weight
	Glucose	40 to 59.5% by weight
	Cyclamate	0.1 to 0.2% by weight
	Saccharine	0.01 to 0.02% by weight

- 90 and may optionally be combined with the normal excipients and carriers used in tablet formulation.

2. A composition according to claim 1 wherein the components are present in the following percentages:

	Sorbitol	44 to 55% by weight
5	Glucose	44 to 55% by weight
	Cyclamate	0.12 to 0.16% by weight
	Saccharine	0.012 to 0.016% by weight

3. A composition according to claim 1 wherein the components are present in the following percentages:—

	Sorbitol	49.5 to 50.3% by weight
10	Glucose	49.5 to 50.3% by weight

	Cyclamate	0.138 to 0.141% by weight
	Saccharine	0.0138 to 0.0141% by weight

15 4. A method of sweetening an ingestible product characterised in that the sweetening composition comprises the following:

	Sorbitol	40 to 59.5% by weight
	Glucose	40 to 59.5% by weight
20	Cyclamate	0.1 to 0.2% by weight
	Saccharine	0.01 to 0.02% by weight

which may optionally be combined with the normal excipients and carriers used in tablet formulations.